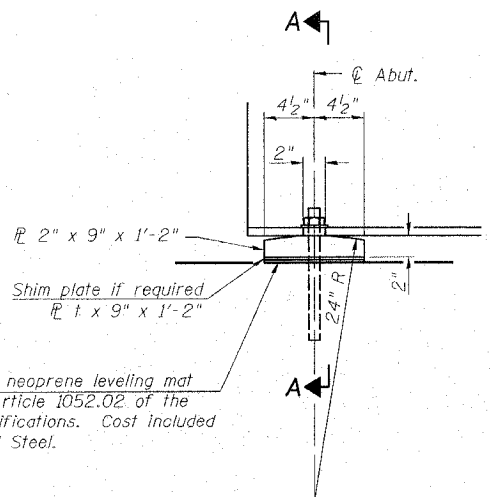


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.P. ROUTE	SECTION	COUNTY	SHEET NO.	SHEET	SHEET NO. 12
805	147BR	ST. CLAIR	52	32	24 SHEETS
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT-		

Contract No. 76393

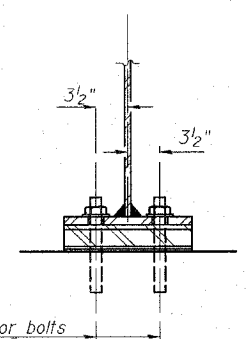
SHIM PLATE THICKNESS, t		
Abutment	Girder No.	t
North	3	1/2"
North	5	3/8"
South	2	3/8"
South	3	3/8"
South	4	1/4"
South	5	1/4"
South	6	1/4"



ELEVATION AT ABUTMENT

FIXED BEARING

Notes: Anchor bolts at fixed bearings may be built into the masonry. See sheet 19 of 23 for Anchor Bolt installation.



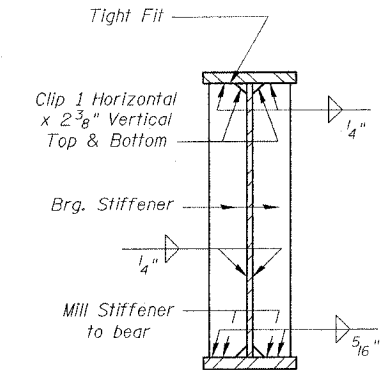
SECTION A-A

1" ϕ x 12" anchor bolts with 2 1/4" x 2 1/4" x 5/16" \bar{P} washer under nut. 1 3/8" x 2" slotted hole in flange. 1/2" ϕ holes in bearing plate.

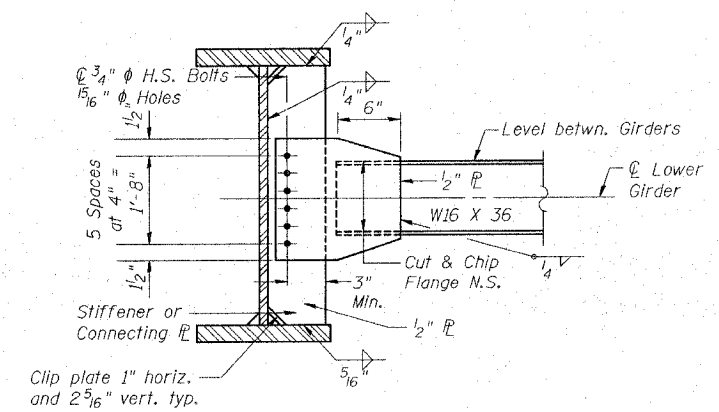
INTERIOR GIRDER MOMENT TABLE	
	0.5 Sp. 1
I_s	(in ⁴) 23895
$I_c(n)$	(in ⁴) 63135
$I_c(3n)$	(in ⁴) 44571
S_s	(in ³) 1209.3
$S_c(n)$	(in ³) 1624.3
$S_c(3n)$	(in ³) 1492.7
Z	(in ³) ----
\bar{D}	(K/ft.) 0.947
$M\bar{P}$	(K) 1828.9
$M_s\bar{P}$	(K/ft.) 0.483
$M_s\bar{P}$	(K) 932.8
$M\bar{L}$	(K) 1304.9
M (Imp)	(K) 261.0
$S_3(M\bar{L}+I)$	(K) 2609.8
M_a	(K) 6983.0
M_u	(K) 7834.0
$f_s\bar{P}$ non-comp(k.s.i.)	18.1
$f_s\bar{P}$ (comp)	(k.s.i.) 7.5
$f_s S_3(L+I)$	(k.s.i.) 19.3
f_s (Overload)	(k.s.i.) 44.3
f_s (Total)	(k.s.i.) ----
VR	(K) 59.0

INTERIOR GIRDER REACTION TABLE	
	Abut.
$R\bar{P}$	(K) 88.9
$R\bar{L}$	(K) 49.2
Imp.	(K) 9.8
R (Total)	(K) 147.9

I_s and S_s are the moment of inertia and section modulus of the steel section used in computing f_s (Total & Overload).
 $I_c(n)$ and $S_c(n)$ are the moment of inertia and section modulus of the composite section used in computing stresses due to Live Load.
 $I_c(3n)$ and $S_c(3n)$ are the moment of inertia and section modulus of the composite section used in computing stresses due to superimposed dead loads. (see AASHTO 10.38)
 VR is the maximum Live Load + Impact shear range in span.
 Z is the plastic section modulus used to determine the fully plastic moments in the non-composite areas.
 M_a (Applied Moment) = $1.3[M\bar{P} + M_s\bar{P} + S_3(M\bar{L} + M(Imp))]$.
 The Plastic Moment capacity (M_u) is computed according to AASHTO 10.48.1 and 10.50.1.1.
 f_s (Overload) is the sum of the stresses due to $M\bar{P} + M_s\bar{P} + S_3(M\bar{L} + M(Imp))$.
 f_s (Total) (Non-compact section) is the sum of the stresses due to $1.3[M\bar{P} + M_s\bar{P} + S_3(M\bar{L} + M(Imp))]$.



SECTION AT ABUTMENT



DIAPHRAGM D

Note: Two hardened washers shall be required over all oversized holes.

FILE LOCATION: \$FILE\$
 DATE: \$DATE\$
 TIME: \$TIME\$
 PLOTTED BY: \$USER\$

THOUVENOT, WADE & MOERCHEN, INC.



DESIGNED	-	ALN
CHECKED	-	BWP
DRAWN	-	JMI, DEH
CHECKED	-	ALN

ILLINOIS ROUTE 161 OVER
 TRIBUTARY TO SCHOENBERGER CREEK
 F.A.P. ROUTE 805 - SECTION 147BR
 ST. CLAIR COUNTY
 STATION 101+03.82
 STRUCTURE NO. 082-0102 (N.B.)
 STRUCTURE NO. 082-0103 (S.B.)

STRUCTURAL STEEL DETAILS